UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 15 2008

VIA CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Stephen Halasz, Environmental Department Manager
Kleinfelder
3601 Manor Road
Austin, TX 78723

Re: Initial Notice of Disapproval for Major Deficiencies on the Draft Maps and Tables
Draft Maps and Tables Submitted March and May 2008
Information Provided in Meeting Held on April 14, 2008
Remedial Investigation and Feasibility Study
Falcon Refinery Superfund Site; Ingleside, San Patricio County, Texas

Dear Mr. Halasz:

The purpose of this letter is to provide the U.S. Environmental Protection Agency's (EPA) "Initial Notice of Disapproval for Major Deficiencies on the Draft Maps and Tables Submitted March and May 2008." These draft deliverables were submitted by National Oil Recovery Corporation (NORCO) pursuant to the "Administrative Order on Consent (AOC) for Remedial Investigation and Feasibility Study," effective June 9, 2004; for the Falcon Refinery Superfund Site, Ingleside, San Patricio County, Texas. Enclosure A (EPA's Comments on Draft Maps and Tables Submitted March and May 2008) consists of the EPA's comments on the draft deliverables and are submitted pursuant to the AOC. The EPA's comments also consider the information and proposal, for "no further action for the Phase II Remedial Investigation," provided by Kleinfelder during the meeting held on April 14, 2008. The EPA's comments include the comments provided by the Texas Commission on Environmental Quality and the Federal and State Natural Resource Trustees.

As provided in Section IX, Paragraph 31 of the AOC, the EPA disapproves (in whole) the Draft Maps and Tables (submitted in March and May 2008) for major deficiencies.

In accordance with Paragraph 33 of the AOC, upon "receipt of notice of disapproval . . . NORCO must correct the deficiencies and resubmit the submission for approval." NORCO is therefore required to correct the draft maps and tables and resubmit each deliverable after incorporating the EPA's comments exactly as directed in Enclosure A. Further, Paragraph 34 states that if, on resubmission by NORCO, the EPA again disapproves the submissions, stipulated penalties will begin to accrue as of the date of the EPA's notice of disapproval. The amended draft deliverables are now due within twenty-one (21) calendar days of the receipt of this letter.

The EPA retains the right, and may exercise this right, to perform its own studies, complete the RI/FS (or any portion of the RI/FS), and seek reimbursement from NORCO for its costs incurred if any additional draft or final deliverables, required by the AOC, are not acceptable to the EPA and would require significant revisions, as in past deliverables, by the EPA to comply with the requirements of the AOC and the purpose of the RI/FS.

The EPA strongly recommends that NORCO representatives participate in another scoping meeting with the EPA and the Federal and State Natural Resource Trustees before NORCO begins the process of preparing any major draft deliverables including, but not limited to, the Draft RI Report, Feasibility Study Report, Human Health Risk Assessment, Screening Level Ecological Risk Assessment, and Baseline Ecological Risk Assessment (if needed). This scoping meeting will include, among other things, a comprehensive discussion of the risk assessments for the Site and the required format and content for the major deliverables. Kleinfelder's human health and ecological risk assessors must participate in these discussions, including those staff members assigned in preparing the major deliverables, including the maps and tables, etc.

Another scoping meeting will be scheduled, after NORCO resubmits the draft maps and tables after incorporating the EPA's comments, to discuss Phase II of the RI/FS for the Site if deemed necessary by the EPA. Please call me, at (214) 665-7437, if you have any questions or comments concerning this letter, the due date for the draft deliverables, or the comments included in Enclosure A.

Sincerely yours,

Rafael A. Casanova

Rafael A. Casanova, P.G.
Remedial Project Manager

Enclosure

cc: Mr. Richard Bergner (National Oil Recovery Corporation, w/encl.)
Ms. Gloria Moran (U.S. Environmental Protection Agency, Region 6, w/encl.)
Ms. Anna Milburn (U.S. Environmental Protection Agency, Region 6, w/encl.)

cc: Mr. Kenneth Shewmake (U.S. Environmental Protection Agency, Region 6, w/encl.)
Mr. Gary Moore (U.S. Environmental Protection Agency, Region 6, w/encl.)
Ms. Jessica White (U.S. National Oceanic and Atmospheric Administration, w/encl.)
Mr. Barry Forsythe (U.S. Fish and Wildlife Service, w/encl.)
Ms. Tammy Ash (U.S. Fish and Wildlife Service, w/encl.)
Mr. Phillip Winsor (Texas Commission on Environmental Quality, w/encl.)
Mr. Richard Seiler (Texas Commission on Environmental Quality, w/encl.)
Ms. Vickie Reat (Texas Commission on Environmental Quality, w/encl.)
Mr. Jeff Patterson (Texas Commission on Environmental Quality, w/encl.)
Mr. John Wilder (Texas Commission on Environmental Quality, w/encl.)
Mr. Steven Childress (Texas Commission on Environmental Quality, w/encl.)
Mr. Don Pitts (Texas Parks and Wildlife Department, w/encl.)
Mr. Andy Tirpak (Texas Parks and Wildlife Department, w/encl.)
Mr. Tommy Mobley (Texas General Land Office, w/encl.)

JUL 15 2008

VIA CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Stephen Halasz, Environmental Department Manager
Kleinfelder
3601 Manor Road
Austin, TX 78723

Re: Initial Notice of Disapproval for Major Deficiencies on the Draft Maps and Tables
Draft Maps and Tables Submitted March and May 2008
Information Provided in Meeting Held on April 14, 2008
Remedial Investigation and Feasibility Study
Falcon Refinery Superfund Site; Ingleside, San Patricio County, Texas

Dear Mr. Halasz:

The purpose of this letter is to provide the U.S. Environmental Protection Agency's (EPA) "Initial Notice of Disapproval for Major Deficiencies on the Draft Maps and Tables Submitted March and May 2008." These draft deliverables were submitted by National Oil Recovery Corporation (NORCO) pursuant to the "Administrative Order on Consent (AOC) for Remedial Investigation and Feasibility Study," effective June 9, 2004; for the Falcon Refinery Superfund Site, Ingleside, San Patricio County, Texas. Enclosure A (EPA's Comments on Draft Maps and Tables Submitted March and May 2008) consists of the EPA's comments on the draft deliverables and are submitted pursuant to the AOC. The EPA's comments also consider the information and proposal, for "no further action for the Phase II Remedial Investigation," provided by Kleinfelder during the meeting held on April 14, 2008. The EPA's comments include the comments provided by the Texas Commission on Environmental Quality and the Federal and State Natural Resource Trustees.

As provided in Section IX. Paragraph 31 of the AOC, the EPA disapproves (in whole) the Draft Maps and Tables (submitted in March and May 2008) for major deficiencies.

7-14-08
CASANOVA/rc/07-14-08/FILE:a:falcon_epa_comments_draft_map deliverables_071408.wpd

RIBB 6SF-RA
WILLIAMS 6SF-RA 7/14/08
MORAN 6RC-S 7/15/08
6SF-RA

In accordance with Paragraph 33 of the AOC, upon "receipt of notice of disapproval . . . NORCO must correct the deficiencies and resubmit the submission for approval." NORCO is therefore required to correct the draft maps and tables and resubmit each deliverable after incorporating the EPA's comments exactly as directed in Enclosure A. Further, Paragraph 34 states that if, on resubmission by NORCO, the EPA again disapproves the submissions, stipulated penalties will begin to accrue as of the date of the EPA's notice of disapproval. The amended draft deliverables are now due within twenty-one (21) calendar days of the receipt of this letter.

The EPA retains the right, and may exercise this right, to perform its own studies, complete the RI/FS (or any portion of the RI/FS), and seek reimbursement from NORCO for its costs incurred if any additional draft or final deliverables, required by the AOC, are not acceptable to the EPA and would require significant revisions, as in past deliverables, by the EPA to comply with the requirements of the AOC and the purpose of the RI/FS.

The EPA strongly recommends that NORCO representatives participate in another scoping meeting with the EPA and the Federal and State Natural Resource Trustees before NORCO begins the process of preparing any major draft deliverables including, but not limited to, the Draft RI Report, Feasibility Study Report, Human Health Risk Assessment, Screening Level Ecological Risk Assessment, and Baseline Ecological Risk Assessment (if needed). This scoping meeting will include, among other things, a comprehensive discussion of the risk assessments for the Site and the required format and content for the major deliverables. Kleinfelder's human health and ecological risk assessors must participate in these discussions, including those staff members assigned in preparing the major deliverables, including the maps and tables, etc.

Another scoping meeting will be scheduled, after NORCO resubmits the draft maps and tables after incorporating the EPA's comments, to discuss Phase II of the RI/FS for the Site if deemed necessary by the EPA. Please call me, at (214) 665-7437, if you have any questions or comments concerning this letter, the due date for the draft deliverables, or the comments included in Enclosure A.

Sincerely yours,

Rafael A. Casanova, P.G.
Remedial Project Manager

Enclosure

cc: Mr. Richard Bergner (National Oil Recovery Corporation, w/encl.)
Ms. Gloria Moran (U.S. Environmental Protection Agency, Region 6, w/encl.)
Ms. Anna Milburn (U.S. Environmental Protection Agency, Region 6, w/encl.)

cc: Mr. Kenneth Shewmake (U.S. Environmental Protection Agency, Region 6, w/encl.)
Mr. Gary Moore (U.S. Environmental Protection Agency, Region 6, w/encl.)
Ms. Jessica White (U.S. National Oceanic and Atmospheric Administration, w/encl.)
Mr. Barry Forsythe (U.S. Fish and Wildlife Service, w/encl.)
Ms. Tammy Ash (U.S. Fish and Wildlife Service, w/encl.)
Mr. Phillip Winsor (Texas Commission on Environmental Quality, w/encl.)
Mr. Richard Seiler (Texas Commission on Environmental Quality, w/encl.)
Ms. Vickie Reat (Texas Commission on Environmental Quality, w/encl.)
Mr. Jeff Patterson (Texas Commission on Environmental Quality, w/encl.)
Mr. John Wilder (Texas Commission on Environmental Quality, w/encl.)
Mr. Steven Childress (Texas Commission on Environmental Quality, w/encl.)
Mr. Don Pitts (Texas Parks and Wildlife Department, w/encl.)
Mr. Andy Tirpak (Texas Parks and Wildlife Department, w/encl.)
Mr. Tommy Mobley (Texas General Land Office, w/encl.)

ENCLOSURE A
EPA'S COMMENTS ON DRAFT MAPS/TABLES SUBMITTED MARCH/MAY 2008
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

FALCON REFINERY SUPERFUND SITE
INGLESIDE, SAN PATRICIO COUNTY, TEXAS
July 2008

The U.S. Environmental Protection Agency (EPA, Region 6) has performed a review of the draft maps and tables submitted March 2008. Enclosure A (EPA's Comments on Draft Maps and Tables Submitted March and May 2008) consists of the EPA's comments on the deliverables and are submitted pursuant to the Administrative Order on Consent (AOC). The EPA's comments also consider the information and proposal, for "no further action for the Phase II Remedial Investigation," provided by Kleinfelder during the meeting held on April 14, 2008. The EPA's comments include the comments provided by the Texas Commission on Environmental Quality and the Federal and State Natural Resource Trustees.

As provided in Section IX. Paragraph 31 of the AOC, the EPA disapproves (in whole) the Draft Maps and Tables (April/May 2008) for major deficiencies. In accordance with Paragraph 33 of the AOC, upon "receipt of notice of disapproval . . . NORCO must correct the deficiencies and resubmit the submission for approval." NORCO is therefore required to correct the draft maps and tables and resubmit each deliverable after incorporating the EPA's comments exactly as directed in Enclosure A. Further, Paragraph 34 states that if, on resubmission by NORCO, the EPA again disapproves the submissions, stipulated penalties will begin to accrue as of the date of the EPA's notice of disapproval.

EPA retains the right, and may exercise this right, to perform its own studies, complete the RI/FS (or any portion of the RI/FS), and seek reimbursement from NORCO for its costs incurred if any additional draft or final deliverables, required by the AOC, are not acceptable to the EPA and would require significant revisions, as in past deliverables, by the EPA to comply with the requirements of the AOC and the purpose of the RI/FS. The amended draft deliverables are now due within twenty-one (21) calendar days of the receipt of this letter.

EPA's Comments

Maps and Tables

The maps/tables are extremely difficult to interpret (due to paper size, quality, and other factors), contained incorrect or incomplete information, and did not follow the requirements of the Remedial Investigation and Feasibility Study (RI/FS) Work Plan approved by the EPA in

2007. Attachment 1 (Map Example) includes an example of a map that is acceptable to the EPA for purposes of this RI/FS. The additional information in this enclosure, including the information provided in the example, shall be included in the next draft deliverables. Following are the recommendations of the Site Team for the revision and presentation of the maps/tables:

a. "Separate" maps shall be prepared for each Area of Concern (AOC), medium (e.g., soil, sediment, ground water, and surface water), and organic/inorganic. These maps shall include the sample interval from where the sample was taken. These maps shall facilitate the determination of the distribution of each organic/inorganic within each AOC and medium of concern.

b. Each map/table shall include the correct data qualifiers identified in the analytical data packages submitted by Accutest Laboratories. These data qualifiers include "U" (undetected at the sample detection limit [SDL]), "J" (concentration greater than the SDL but less than the method quantitation limit [MQL]), "B" (found in the method blank for organics), and "B" (concentration greater than the SDL but less than the MQL for inorganics). The maps/tables shall contain the information required to facilitate comparison with the analytical data packages submitted by Accutest Laboratories.

Additionally, the columns in the spreadsheets, previously submitted by Kleinfelder, designated as "MDL" (Method Detection Limit) should be redesignated "SDL" (Sample Detection Limit) since the values in these columns are the SDLs (i.e., the MDLs adjusted for any sample-specific actions such as dilutions, moisture content for sediments and soils, etc.). The columns in the spreadsheets designated as "Reporting Limit" should be renamed "adjusted MQL" for consistency with the analytical terminology used by Accutest Laboratories. Also, the appropriate SDLs and MQLs shall be included in the data submitted by Kleinfelder.

c. Each map/table shall depict those values "Undetected" at the SDL for comparison with the appropriate screening value. SDLs greater than the appropriate screening value shall be flagged (e.g., by color coding).

d. Each map/table shall include "Detected" and "Estimated" concentrations. Those concentrations that exceed the appropriate screening value shall be flagged (e.g., by color coding). Exceedances of a screening level shall clearly indicate which standard was exceeded.

e. Maps/tables shall be submitted for additional organics/inorganics (e.g., among others, hexavalent chromium, phenanthrene, toluene, ethylbenzene, xylene, vanadium, barium, beryllium, copper, and nickel) detected above the MQL or detected at concentrations greater than the SDL but less than the MQL.

f. Each sample location depicted on a map/table shall be referenced to the appropriate analytical data package prepared by Accutest Laboratories. The "Client Sample ID" and "Lab Sample Number," included in the analytical data packages, shall be cross-referenced with an appropriate sample location.

g. Each map/table shall include every location sampled during the 2007 and 2008 sampling event.

h. Each map/table shall include all appropriate screening levels. Additionally, each map/table shall include the correct screening levels (e.g., the map provided for "Magnesium, Aqueous" contained the incorrect human health screening levels).

i. The ground water data, included with each map/table, shall be screened against the Maximum Contaminant Level (MCL), unless the MCL is not available. Additionally, the MCL is not an appropriate screening level for surface water. Surface water is not a drinking water source in this case and shall be evaluated for the potential to contaminate fish, taking into consideration other routes of exposure such as incidental ingestion and dermal exposure, etc.

j. Separate human health and ecological maps/tables shall be prepared.

k. All sample results shall be included in the appropriate spreadsheets to allow for an evaluation of the data.

l. A complete and concise text summary of the results shall be provided in order to assist the Site Team in the interpretation of the data. This text summary shall include more detailed information than simply a generic description of the maps, symbols, and tables, which was previously provided by Kleinfelder. This summary shall also include a detailed description of the rationale for Kleinfelder's recommendations of "additional" or "no additional" sampling for each chemical detected above its respective screening level. Additionally, this summary shall include a comparison of the analytical data and the appropriate ecological and human health screening values, including background.

Areas of Concern

NORCO's discussion concerning the use of AOCs in the interpretation of the analytical data, for a determination of the appropriate number of samples and for use in the risk assessments, is not consistent with the requirements of the RI/FS Work Plan approved by the EPA in 2007. Each AOC shall be investigated as a separate "theoretically" homogenous unit. The appropriate number of samples can then be determined, and the baseline risk assessment and other risk information gathered will provide the justification for taking an action for an AOC. At the same time, risk assessors shall consider other potential exposure pathways associated with

other AOCs, thus considering risks from all related AOCs (e.g., the ground water migration of contaminants, from AOC-1 South Site, into the sediments or surface waters of AOC-3 [Wetland Area]).

Background

A statistical evaluation of the background concentrations of inorganics shall be performed based on the guidance document(s) previously provided to NORCO in EPA's earlier comments on the RI/FS deliverables, or other appropriate guidance. Background concentrations generally cannot be used as a justification for the elimination of inorganics from further investigation or study.

Nature and Extent of Contamination for Grossly Contaminated Soil at the South Site

The nature and extent of contamination shall be determined for the tank farm area located at the South Site. The visible contamination in this area shall be included in the risk assessments, feasibility study, and identification of remedial alternatives for this RI/FS. The removal of "only" grossly stained soils, required by the "Removal AOC," will not meet with requirements of the RI/FS for the Site.

Visual Sample Plan Software

Visual Sample Plan (VSP) software will not determine whether a risk assessment is needed for this Site. VSP is useful in determining whether the appropriate number of samples have been collected for each medium and AOC based on the distribution of each organic/inorganic within an AOC and respective medium of concern. A risk analysis is unrelated to VSP. Risk assessments, required by statute and regulation, shall be performed for this Site. Kleinfelder's draft VSP submissions indicated that the data collected are considered normally distributed. Environmental data are seldom normally distributed. A statistical test(s) shall be performed to identify the best distributional assumption for each data set. Additionally, it is not appropriate to combine, for example, the surface water and ground water sampling data points in a VSP evaluation.

Hazard Ranking System Analytical Data

The Hazard Ranking System analytical data shall not be combined with the data obtained from the 2007/2008 RI sampling event for a determination of the appropriate number of samples for each AOC or for risk assessment calculations. The HRS data can be used during the uncertainty analysis for the risk assessments.

Exceedance of Screening Levels

NORCO has proposed "no further action" for Phase II of the RI. Based on a review of the maps submitted by NORCO in March 2008, the following organics/inorganics exceeded their

respective screening levels and will require further investigation/rationale before elimination as a COPC. This may not be a comprehensive list. Due to the formatting of the draft deliverables, additional exceedances may have been overlooked. The EPA did not review the draft maps submitted in May 2008 due to formatting and other issues that made the presented data difficult to interpret.

a. AOC-1 North Site Ground Water

1. Aluminum, at TW01-18, exceeded the human health ground water PCL.
2. Arsenic, at several locations, exceeded the human health ground water MSSL.
3. Benzene; at TW01-02, TW01-11, and TW01-07, exceeded the human health ground water MSSLand TCEQ PCL. It also exceeded the human health ground water MCL at TW01-07.
4. Thallium, at several locations, exceeded the human health ground water PCL.

b. AOC-1 North Site Soil

1. Aluminum, at several locations, exceeded the human health soil TCEQ PCL.
2. Arsenic, at several locations, exceeded the human health soil MSSL.
3. Benzo(a)anthracene, at several locations, exceeded the human health soil MSSL.
4. Benzo(a)pyrene; at J-04S, J-09S, and J-12S; exceeded the human health soil MSSL.
5. Benzo(b)fluoranthene, at J-09S and J-12S, exceeded the human health soil MSSL.
6. Chrysene, at J-03S and J-04S, exceeded the human health soil MSSL.
7. Indeno(1,2,3-cd)pyrene, at J-09S and J-12S, exceeded the human health soil MSSL.

c. AOC-1 South Site Ground Water

1. Arsenic, at several locations, exceeded the human health ground water MSSL.
2. Benzene; at TW01-18, exceeded the human health ground water TCEQ PCL.
3. Lead, at TW01-34, exceeded the human health ground water MSSL and TCEQ PCL.

d. South Site Soil

1. Arsenic, at several locations, exceeded the human health soil MSSL.
2. Benzo(a)anthracene, at J-14S, exceeded the human health soil MSSL.
3. Benzo(a)pyrene, at J-14S, exceeded the human health soil MSSL.
4. Benzo(b)fluoranthene, at J-14S, exceeded the human health soil MSSL.

e. AOC-3 Wetland Area Surface Water

1. Lead, at J-57SW, exceeded the ecological surface water screening level.
2. Magnesium, at several locations, exceeded ecological the surface water screening level.
3. Thallium, at G-47SW, exceeded the ecological surface water screening level.
4. Magnesium, at several locations, exceeded the surface water screening level.

f. AOC-3 Wetland Area Sediment

1. Arsenic, at G-46SD, exceeded the ecological sediment screening level.
2. Bis(2-ethylhexyl)phthalate; at G-29SD, G-43SD, G-45SD, and G-46SD; exceeded the ecological sediment screening level.
3. Zinc, at several locations, exceeded the ecological sediment screening level.

g. AOC-3 Wetland Area Soil

1. Benzo(b)fluoranthene, at J-51S, exceeded the human health soil MSSL.

h. AOC-4 Current Barge Docking Facility Soil

1. Arsenic, at Composite 5, exceeded the human health soil MSSL.
2. Benzo(a)anthracene, at Composite 5, exceeded the human health soil MSSL.
3. Benzo(a)pyrene, at Composite 5, exceeded the human health soil MSSL.
4. Benzo(b)fluoranthene, at Composite 5, exceeded the human health soil MSSL.
5. Indeno(1,2,3-cd)pyrene, at Composite 5, exceeded the human health soil MSSL.

i. AOC-5 Redfish Bay Surface Water

1. Lead; at J-59SW, J-60SW, J-61SW; exceeded the ecological surface water screening level.
2. Magnesium, at several locations, exceeded the surface water screening level.
3. Lead, at J-58SW, exceeded the ecological surface water screening level.
4. Magnesium, J-58SW, exceeded the ecological surface water screening level.

j. AOC-5 Redfish Bay Sediment

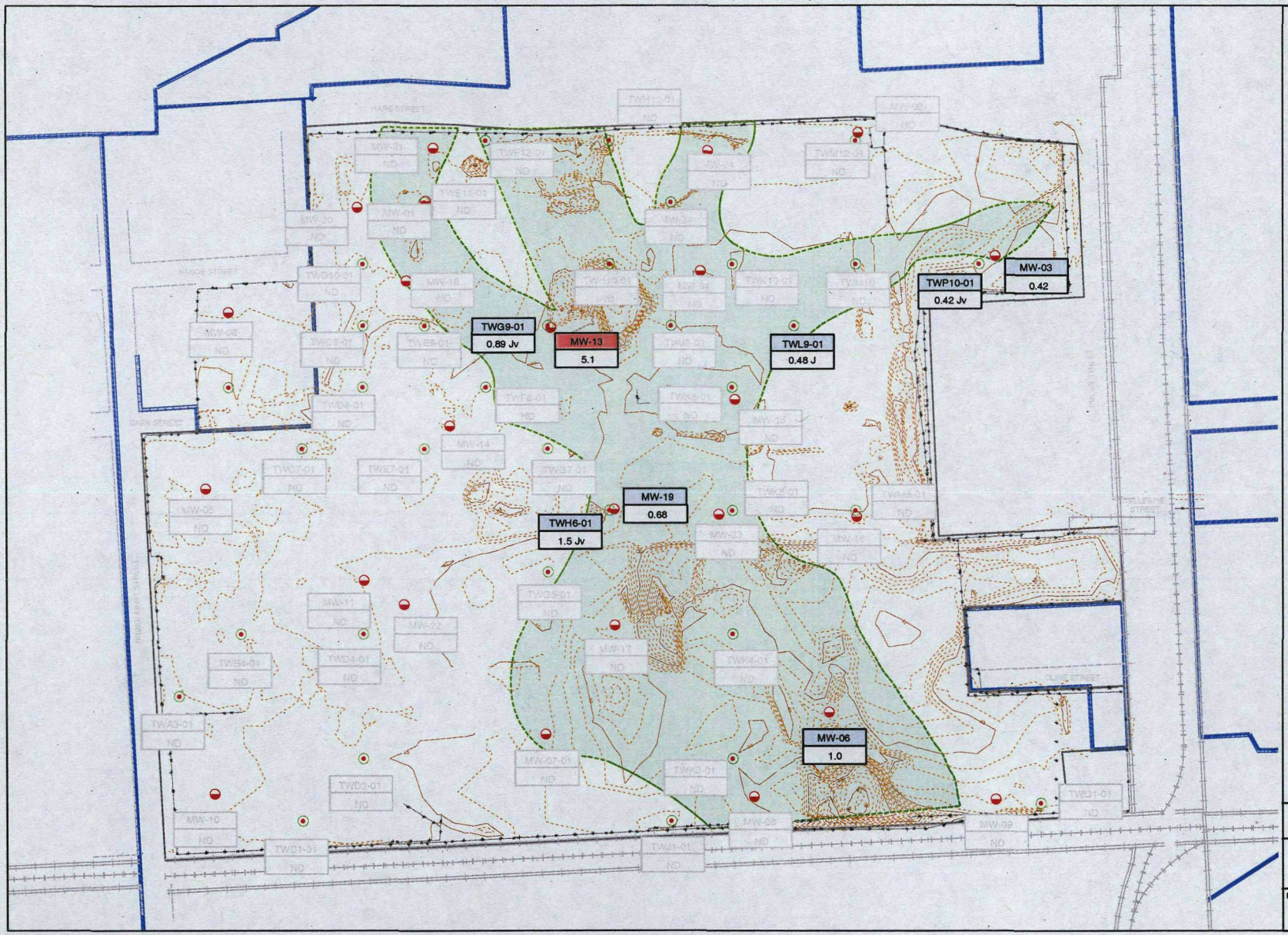
1. Benzo(a)anthracene, at J-60SD, exceeded the ecological sediment screening level.
2. Benzo(a)pyrene, at J-60SD, exceeded the ecological sediment screening level.

3. Chrysene, at J-60SD, exceeded the ecological sediment screening level.
4. Lead, at J-60SD, exceeded the ecological sediment screening level.
5. Mercury, at J-60SD, exceeded the ecological sediment screening level.
6. Pyrene, at J-60SD, exceeded the ecological sediment screening level.
7. Zinc, at J-60SD, exceeded the ecological sediment screening level.

k. AOC-7 Bishop Road Soil

1. Arsenic, at J-65S, exceeded the human health soil MSSL.

ATTACHMENT 1
MAP EXAMPLE



Legend

- Temporary Well Location
- Monitoring Well Location
- Approximate Extent of Foundry Sands
- Fence
- Street
- Railroad
- Main Contour Interval (1 foot separates intervals)
- Intermediary Contour Interval
- Subdivision Boundary
- Site Boundary

Notes:

1. Results are posted in µg/L
2. ND = Compound not detected at concentration above reporting limit.
3. Federal Maximum Contaminant Level (MCL) = 5 µg/L
4. EPA Region 6 Tap Water Standard = 0.35 µg/L
5. Qualifiers:
   J = Estimated value
   v = Reported concentration may be biased low due to interferences

Concentration exceeds EPA Region 6 tap water standard

Concentration exceeds Federal MCL

N

0 75 150

Feet

MDI SUPERFUND SITE
HOUSTON, TEXAS

FIGURE 22
DETECTION OF BENZENE IN GROUND WATER

PREPARED FOR: EPA

BY: Tetra Tech EM Inc.

11-19-03 B:\MDI\mw_tw_maps\Figure 22 bz_results.mxd hp bl